

AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"O fortunatos nimium sua si bona norint
Agricolae." . . . VING.

VOL. I.

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AGRICULTURAL.

ON THE

Cultivation of Fiorin Grass,

By Dr. Richardson, D. D. Clonfeckle, Moy, Ireland.

Extracted from the memoirs of the Workington Agricultural Society.

(Concluded from No. 35, p. 276.)

I limit my speculations to your English Meadows alone, and my claim to the performance of my promise, to the additional crops of corn grown on these meadows; converted to tillage by the powerful operation of fiorin grass, where its culture shall become general.

I speculate upon this under the assumption I have made, that the conviction of the great value of this grass is universally diffused; and has roused proprietors, and landholders into action.

To calculate the effects I am afraid we have not data; but to have something positive to proceed upon, we must again speculate and assume.

I shall therefore suppose that by the exertions I have roused, fiorin hay and winter green food (applied to the same purpose) to be raised to the amount of half the quantity of hay produced by our present meadows; of course one third of them, at least, turned out of their present employment, obliged to try another trade, that is, be broken up for tillage.

We have now restored to the agriculturalist, two million acres of choice ground; let us see how they will operate upon our provision store.

I suppose every acre managed by skillful rotation, and to produce in every four years one crop of wheat, one of oats; and two green crops; we shall then have 500,000 acres of wheat (for I shall not take the oats into account) added annually to our present produce; potatoes too will often compose part of the green crops.

A good acre of wheat has been estimated on average at 120 stone; I shall add a fifteenth, 8 stone as it will contribute to the ease of calculation, to the clearness of the results, and may be allowed for.

Then 128 stone to each acre equal to four quarters of wheat at 32 stone gives us from our new acquisition, two millions of quarters of wheat yearly.

The annual consumption of wheat in England has been estimated at seven millions and one-half of quarters, by others at eight millions.

The deficiency in crop in one of the worst years, 1800, or 1801, was supposed by the Duke of Portland to be one fourth of the averaged crop, and estimated at two millions of quarters of wheat.

The importation in each of these (by far the greatest ever known) passed considerably, one

million without reaching a million and a half of quarters.

From these materials it is plain that the transfer of two millions of acres of meadow to the agriculturalists for grain crops, will fully answer every purpose; will not only bring up the food to the level with the population, but also will secure an abundant provision for increasing population.

For the quantity of grain thrown into consumption by the acquisition of these meadows far exceeding the greatest quantity ever imported, on the greatest extremity, and more than equalling the whole deficiency of the very worst year, must in all common seasons secure a vast fund for exportation, by a certain redundancy above all demands.

The only question of difficulty is, shall we be able to lop off one third from our present meadows?

I can only speak for Cumberland; you tell me the rest of the county (as I understand of most of England) abounds also with peaty moor surely in that case when the aptitude of fiorin for such cheap grounds is established; instead of one third—nine tenths of your present meadows must vanish before their more luxuriant and more cheaply raised rival.

I shall be told that much of England is too arid for fiorin—have I not repeatedly challenged Bagshot Heath? and though I succeeded in tempting the Marquis of Hartford to encounter his peaty mountain, he would not let me try to convert his barren Suffolk sands into fiorin meadow.

These I confess are extreme cases; and I do not say the crops, I answer for, would pay the expense; but it is convenient to know the utmost extent of our powers; as when fairly within our limits we may venture with confidence.

You and I have had much conversation on the subject of the sandy turnip grounds, of Norfolk, in which you seemed to take a lively interest, and to doubt much that I would not be able from such soils to produce the crops of dry hay; they require so much in that country, to temper their over succulent clover, and turnip feeding.

No doubt had I an option; it is not to such parched soils, I should recur for fiorin crops; but where it becomes necessary I should not shrink from them.

The important difference would be, that instead of finding (as before) my own manure, ashes or water, I must call for putrescent manure (in small quantities indeed) to mix up into compost with the loose soil of the place; and then by availing myself of the natural history and habits of this vegetable; I engage to produce as good crops of fiorin in Norfolk as in moister grounds; later indeed, nor would I answer as in other places, for a supply of green food in September, but as I understood you, dry hay was the great

desideratum: and for that I engage to any amount.

Why does the turnip thrive with so much luxuriance in that loose arid soil; because the great paroxysm of vegetation of the turnip, does not come on until the drought is nearly over, and then continues, in vigour through the moist Autumn, when the length of the night, and (even when no rain) heavy dews; supply ample moisture.

Exactly the case with the fiorin, whose paroxysm comes on later; and continues longer; and I answer for it, if we keep in view the extreme drought the crop may sustain in summer; and arrange its period of laying down; so as to have the ground clothed early; that Norfolk shall produce as luxuriant fiorin, as Cumberland or Clonfeckle.

I need not recur to authorities to prove that the state of our country in respect of provisions, is very alarming; it is too well known; you have suggested two remedies; either of which you clearly prove, would be completely adequate to prevent, both immediate and future calamity.

I suggest a third; and as I think, have demonstrated that mine by itself would be fully sufficient.

Our three measures are totally distinct from each other, yet in many points they bear strong marks of similitude.

The end we both aim at is the same, and the greatest national object that can well be conceived; yet we never think of calling upon the state to aid us—we run no risk of being told, that we shall not convert public money to private use; that we shall not make parliamentary liberality, a mere source of patronage; we simply ask others to do what we have done ourselves with success—upon whom do we call? not upon the nation; but upon the individuals composing it; we call for exertions immediately beneficial to themselves and remotely to the state.

Is there a landholder in the united kingdom, who cannot co-operate in some of our plans? and how many in them all; he who cannot extend his agricultural field, may at least improve his practice; and who cannot plant fiorin on some scale?

Able generals previous to a battle, have often in their address to their soldiers; told them that each individual should consider the victory as depending on his own exertions, as resting upon his own arm alone.

Is not our case at present exactly similar? let each landholder do something, as if under the conviction, that the prosperity, nay the very existence of his country; depended upon himself; the result is obvious, and would be instantaneous.

Your desiderata and mine are precisely the same—confidence in us, and proportionate exertion on the part of others;—was there ever so apt a period; one so fit for enabling exertions to be carried to the utmost extent as the present?

our trade abated and of course much capital unemployed—our manufacturers idle, and turbulent for want of food, we suggest immediate remedies for both inconveniences: we open sources for the application of capital, to the improvement of our wilds and wastes,—and in every part of the united kingdom, we find abundant employment for every man now thrown out of his usual work.

Let us look to the state of England in another point of view,—the whole population of England and Wales, amount to 9,343,578. The numbers employed in agriculture by the returns to the house of commons, but to 1,713,289, the excess therefore above the agricultural populations is 7,680,289.—Is this a prudent distribution of the national force?—the great redundancy of the manufacturing population; above what supplies our domestic consumption and that of our colonies; we now find lies at the mercy of treacherous friends or inveterate enemies; it is these who have thrown our manufacturers idle. Let then the agriculturist throw open his arms to receive the unemployed manufacturers; let him cherish them as a gift of providence bestowed upon him at the most critical time; just as he is taught by you and me, to avail himself of their strength to his own great benefit; and to the infinite advantage of his country.

Let him treat them with kindness in their distress, and the natural propensity of man, to prefer the open air, to sedentary labour; will induce very many of them to adhere to their new trade, and the increase of the agricultural population will not be momentary but permanent.

W. RICHARDSON, D. D.

Moy, Ireland, Dec. 4th. 1811.

TREATISE ON AGRICULTURE.

We have now the satisfaction to continue those valuable essays from the Albany Argus—six of which have been republished in the Farmer the last one of them in number 25, page 183. Our file of the Argus, some how, got broken, and we now resume the publication from that excellent journal the PLOUGH BOY—a work which contains so much to admire and instruct, that were we to copy all that serves to amuse or to edify, we should transcribe the whole—four numbers more comprise the whole of these essays

Editor Am. Farmer.

Treatise on Agriculture.

SECTION VII.

Tillage, and the principles on which it is founded.

Tillage has three objects: first, the raising of plants, whose seeds, stems or roots may be necessary or useful to man, and the animal he employs; second, the improvement of the soil, by laying it open to those atmospheric influences which increase its fertility; and third, the destruction of weeds or plants which rise spontaneously, and are either altogether unfit, or fit only in a small degree, for the nutrition of men and cattle, and which if left to themselves, would stifle or starve the intended crop.

In fulfilling either or all of these objects, it is evident that the surface of the earth must be broken and divided into small parts, so that in the first instance it may furnish a bed and covering for the seeds sown, enable them to push their

roots into the soil, and draw from it a portion of their subsistence.

To accomplish this leading intention, (the division of the soil,) various means have been employed. Fossile, animal and vegetable manures, as well by their mechanical action as by their chemical properties, promote it; as do sand, pounded limestone and water, (as in the culture of rice) but it is to the spade and plough we must look for that degree of efficiency, without which, the earth would have remained a desert, or would become one. Of these, where the scale of labour is small, (as in garden culture) the former is to be preferred; but in farming, the greater expedition of the latter gives it a decided advantage. Our remarks, therefore, will be confined to the operations of this instrument, and particularly to such of these as has given occasion to differences in opinion among practical farmers.

1st. At what season of the year, (spring, summer or fall,) is ploughing best performed, in relation to a division and improvement of the soil, and the destruction of weeds?

The more scientific opinion is in favour of fall ploughing; because to the action of air and moisture it adds that of frost, whose sceptic or dividing quality is second only to that of the plough itself. In clay soils, this preparation should never be omitted; because on those the action of frost is greater, and because one ploughing of this kind may save two in the spring—when time is every thing. (1) In this operation however, we must not forget to ridge, as well as plough; and care must be taken, that our furrows have sufficient declination to carry off surplus water. With these precautions, your clay ground will be ready early in the spring for another ploughing; and the decomposition of the sod and weeds, (turned down in the fall,) will be nearly if not altogether complete. (2)

In dry and warm soils, these advantages are less, but still, the time gained for spring work is a sufficient inducement to a practice that economises not merely our labour, but the productive powers of the earth also, by soonest enabling us to shade the soil with a growing crop. (3)

2d. What number of ploughings preparatory to a crop, is necessary or proper?

The Romans were in the practice of multiplied ploughings. This appears as well from the precepts of Cato, as from the opinion of Columella, that "tillage which does not leave the earth in a state of dust, and render the use of harrows unnecessary, has not been well performed." Tull,

1. The Marsh bean grows best on a fall ploughing; and oats, well harrowed, will, on such ploughing, give a good crop without other culture.

2. Without water there is no decomposition, and much water checks and prevents it.

3. Those who have any doubts about the importance of shade, have but to look at the effects of a brush heap, or other collection of small bodies, admitting air, heat and moisture, during the spring or summer months. Under such collections he will find a much more vigorous vegetation, than in the uncovered parts of the field.—The cause of this effect is, that the brush prevents evaporation.

and his disciples, carry the doctrine still further, and believe that frequent ploughings enable us to dispense with even the use of manures. This, however, is extravagant; it is certain that the plough can do much, but it is equally certain that there is much it cannot do.

Agricultural, like other business, having profit for its object, is a subject of calculation: its labours must be regulated by its end, and the moment the expense of these transcends the profit, it may be improvement, but it ceases to be farming. When therefore, we hear of six ploughings preparatory to a wheat crop, we conclude either that the plough will soon stop, or that it belongs to one of the Dilettanti, who thinks it below him to count the cost. In our own practice we find that spring crops, of the cereal graminæ, succeed best on one fall ploughing, well ridged and furrowed, and one cross ploughing in the spring—and that spring and summer crops, of the leguminous and cruciform families, form the best possible preparation for winter crops, and render unnecessary more than one additional ploughing.

After all, any proper answer to this question, must necessarily be qualified by considerations of soil, weather, season, crop and culture; influences which cannot but exist in all cases, and over which we have no control. Wheat, for instance, requires more preparatory ploughing than rye, and rye more than oats. Clay ground demands more tillage than calcarious earth, and calcarious earth more than sand. Wet or dry weather makes frequent ploughing (according to circumstances,) either useful, injurious or impracticable; and the shade of a horse hoed crop is perhaps, in itself, of more importance to that which succeeds, than would be the fallowing of a whole summer.

3d. What depth of ploughing is most to be recommended?

This question, though less complicated than the last, requires, like it, an answer qualified by circumstances. Tap rooted plants require deeper tillage than others; fall ploughings may be deeper than those of spring, and spring than those of summer. If the vegetable soil be deep, deep ploughing will not injure it; but if it be shallow, such ploughings will bring up part of the sub soil which is always infertile, until it receive new principles from the atmosphere.—"They who pretend," says Arthur Young, that the under layer of earth is as proper for vegetation as the upper, maintain a paradox, refuted both by reason and experience."

Where, however, it becomes part of your object to increase the depth of the surface soil, deep ploughing is indispensable; and in this, as in many other cases, we must submit to present inconvenience for the advantage of future benefit. But even here it is laid down as a rule, that "in proportion as you deepen your ploughings, you increase the necessity for manures." (4)

"From six to eight inches may be taken as the ordinary depth of sufficient ploughing." (5)

And 4th. Of the different modes of ploughing, level or ridge ploughing, which is to be preferred?

This question admits no absolute answer. We have already suggested the use of the latter

4 Young.

5 Idem.

mode, in stiff, heavy wet clays, and in our opinion all ground, in which clay predominates, whatever be the culture, should be made to take this form; because it powerfully tends to drain the soil and carry off from the roots of the growing plants, that superfluous water which left to itself, would seriously effect both the quality and the quantity of their products. (6) In sandy, porous, dry soils, on the other hand, level ploughing is to be preferred, because ridging such soils would but increase that want of cohesion, which is their natural defect.

A loamy soil, [which is a medium between these two extremes] ought, in a dry climate, to be cultivated in the flat way, that it may the better retain moisture; and in a wet climate, in ridges, that it may the sooner become dry.

6 It has been objected to ridge ploughing, that it accumulates the good soil on the crowns of ridges, and impoverishes the sides and furrows. These objections are obviated by narrow and low ridges, which alternate every crop with the furrows.

From the National Intelligencer.

STATISTICAL.—COTTON, RICE, TOBACCO, SUGAR, WINE.

The National Intelligencer informs us that in New York 133 bushels of Indian corn have been gathered this year from one acre, and 714 bushels of potatoes from one acre. This has led to the following statistical facts.

Cotton.

In 1817 the export of cotton from the United States was (85,649,328 lbs.) more than eighty five million. One acre yields at a moderate estimate, 250 lbs. of clean cotton. This whole export therefore, is the product of only 535 square miles—this is less than the 108th part of Georgia, and less than the 520th part of the cotton regions of the United States.

Rice.

The maximum export of rice was 73,329 tierces, in 1790, or 43,997,400 lbs. nearly forty-four million pounds. This on an average crop, is the produce of only sixty-five square miles, which is less than the 440th part of South Carolina, and less than two thirds of the district of Columbia.

Tobacco.

The maximum export of tobacco was 12,428 hogsheads in 1791. A hogshead is about one thousand weight; and, on an average, one acre will yield one hogshead. The export, therefore, was the product of about 176 square miles—which is less than the 363d part of Virginia. Each of the 97 counties of that state, contains on an average, more than 659 square miles, viz:—more than three times the quantity of land which furnished the above export

Sugar.

Such is, generally, the fertility of the equinoxial regions of America, that all the sugar consumed in France, estimated at twenty million killogrames, (about fifty-four million pounds,) may be produced on an extent of seven square leagues, which is not equal to one thirtieth part of the smallest department of France.

Wine.

About 1,600,000 arpens, or 1,350,400 acres, are in France employed in the culture of the vine. The value of the annual product is about 100,800,000 dollars at about twenty cents a gallon. In 1790, Bordeaux alone exported more than fifteen million gallons of wine. The one million six hundred thousand arpens are less than one eightieth part of France, and less than one twentieth part of Pennsylvania.

The value of the annual produce of these five interesting articles may be thus estimated:

Cotton at 15 cents,	\$12,847,399
Rice \$20 a tierce	1,466,580
Tobacco \$60 a hogshead,	6,745,680
Wine 20 cents a gallon,	100,800,000
Sugar consumed in France, at ten cents a pound,	5,400,000

\$127,259,559

For the product of these articles the following quantities of land are cultivated, viz:

	<i>Square miles.</i>
For cotton	555
rice	65
tobacco	176
sugar	63
wine	2110
	2949

This is a little less than three fourths of the state of Connecticut.

The authority for cotton, rice, and tobacco, is Seybert's Statistical Annals, and the personal information of gentlemen of experience in the culture of those articles.

For sugar I have the authority of Humboldt's Essai Politique.

For wine I depend on Chaptal; his "Treatise, theoretical and practical, on the culture of the vine, and the art of making wine, brandy, spirits of wine and vinegars, simple and compound," is a truly classic work, in which he had the aid of Rozier, Parmentier, and Dussieux. It contains all that the chymist, or botanist, or vine cultivator, or enlightened statesman can reasonably ask, or wish to know. It is in two 8vo. vols. of about 500 pages each, with twenty one plates.

This admirable treatise should be translated for the use of our fellow citizens who occupy our wine-yielding regions. For in a few years, the United States will produce wine for their domestic consumption and exportation.

A revolution of our planet on its axis would present to the eye of an observer at the distance of a few thousand miles, a few spots or specks (China or Holland) fully cultivated. The rest would be as a desert. Pauperism in England, now so extensive and so dangerous, is fulfilling the prophecies of Goldsmith's deserted village.

"Political economy," says Jean Baptiste Say "is founded on statistical knowledge, or what is the same thing, history;" and that "the American confederacy will have the glory of proving that the loftiest policy is in accordance with moderation and humanity."

The most active mind has not yet conceived an adequate idea of the vast resources of the United States.

Washington City.

From the National Intelligencer.

ON THE GRAPE VINE, WITH ITS WINES, BRANDIES, SALT, AND DRIED FRUITS.

No. III.

The object of these papers is to excite to objects of agriculture, manufacture, commerce, and consumption of the utmost importance to the prosperity of our country. The forms and niceties of literary composition will yield their claim to attention to the more solid substance of the pertinent information and suggestions.

In the course of the consideration of this subject, several letters from living friends to our prosperity have been brought together. The remainder of this paper will be appropriated to the publication of one of those letters, of very recent date, from a native of the United States, of the best opportunities, in Bordeaux, the emporium of that part of the kingdom of France which gives to us the largest quantities of the most esteemed wines and brandies which enter into our regular consumption. It here follows, in its own clear and instructive terms:

"I have been favoured by your letter of the 24th. *Chaptal*, sur la Culture de Vine, *l'Abbe Rozier's* memoire sur le mellieure maniere de faire et gouverner les vins, and *Jullien's* Topographie de tout les Vignobles, are the authors the most in repute in France on the Vine and on Wine. The first and last can be had in Philadelphia; and if Rozier's memoir is not to be found, as it is an old book, you can doubtless find, at your French book stores, his Dictionary of Agriculture, 5 vols. in 4to, which under the head of Vine, will give you all the information you desire.

"The district which produces the best wine, about Bordeaux, is Medoc. That country is divided into upper and lower Medoc, lying between the Gironde and Garonne and the Bay of Biscay. It is much such a country, as to hill and dale, or general surface, as that between Philadelphia and Trenton, of a sandy-loam, and gravelly soil, with some few exceptions of small patches. About seven leagues from North to south, and three from east to west of this district, is occupied with vineyards, which produce the best wine, whose expositions are from east to south.

"In this district, Lafitte, Chateau Margaux, Latour, Leoville, La Rose, Braune Mouton and St Julien, with various other qualities of Claret, are produced which bring from sixty dollars the ton, of four hogsheads, (or 252 gallons,) to six hundred dollars, according to the estimation they are held in. The vines in this district are not suffered to grow above three feet from the ground.

"*Hautbriant* is produced on a single estate of that name, lying in La Grave, about a league south of Bordeaux. The soil is sandy and gravelly; so much so that you would hardly suppose it capable of vegetation.

"The districts which produce Sauterne, Barsac and Grave wines, lie from the skirts of the city south about four leagues, presenting much the same swell of surface as that part of New-Jersey through which the mail runs between Trenton and Brunswick. The name of this district, (or, more properly speaking, the northern

part of it,) Grave, denotes its soil Gravier—Gravel. I have seen hundreds of acres of vines in Grave, growing in pebbles, from the size of a bean and nutmeg to that of an egg, without the least vestige of earth, crackling under foot, and filling one's shoes. Of the white wines of Bordeaux, Sauterne, Barsac, and Corbonnieux are of the first quality; but there are many other growths which vie with them, and the ordinary qualities of these white wines are various. I have purchased good pleasant white wine at six dollars the cask of 63 gallons. The qualities sent to this country cost from twelve dollars the cask to forty dollars. Of the other wines you mention I have no knowledge.

"It has been stated that two millions of acres are taken up in the cultivation of the vine, in France, producing, one year with another, five hogsheads of sixty-three gallons to the acre; which at the moderate price of fifty francs, or ten dollars, the hogshead, gives one hundred million of dollars.

This produce is immense: and what renders it still more valuable is, that it does not lessen the quantity of other necessary productions, such as wheat, &c.; for where the vine generally grows in France, nothing else will grow; such is the poverty of the soil generally employed for vines.

"They have the wild vine in France. I have seen large quantities of it near Bayonne, and round the foot of the Pyrenees, up to Pau. The inhabitants make beautiful hedges of it, and I have been assured by a distinguished naturalist, Mr. Pennieres, who is now in the Alabama territory, that some of the excellent grapes of France have been produced from the wild vine, after some years of careful cultivation. He is now engaged in inoculating our wild vines with those of France, from which he expects the most favourable results.

"I shall conclude these hasty observations by an extract from Rozier:

"The vine is a plant whose transpiration and suction is abundant and vehement, which sufficiently indicates the soil and exposition natural to it. For this reason, grounds composed of sand gravel stones and rotten rocks, are excellent for its cultivation.

"A sandy soil produces a fine pure wine. The gravelly and stony a delicate wine. Rotten and broken rocks a fummy generous wine, of a superior quality.

"A rich, strong, compact, cold or humid soil, which is pressed down by the rains, and which the sun hardens or bakes, is essentially prejudicial to the quality of the wine.

"The most advantageous exposition for the vine, is that of a gentle slope, or side of a hill, facing east and south, on which the rays of the sun continue the longest time.

"Hills in the neighbourhood of the ocean and rivers, ought to be preferred to all others. The lower parts of these hills are not so favourable to the vine as the upper, and neither are equal to the middle region, the soil being the same.

"All trees are unfriendly to the vine, as much from their roots as their shade. All who cultivate the vine, should remember this precept of Virgil; 'Apertos Bacchus amat colles'—The vine flourishes in the open unshaded hills."

"In a word, the vine ought never to be planted

in soils that can produce grain &c. because it wants nothing but heat and thrives best in the poorest ground. This will appear ridiculous to those who look for quantity: but as to the quality of the wine, it is in strict conformity with the laws of vegetation and with experience.

I must be understood to speak here of countries only whose temperatures are favourable to the success of vineyards. We must except those in more northern latitudes. These general precepts admit of no exceptions: they will be acknowledged by all those who, with good faith, and free of prejudice, have studied the cultivation of the vine. If other modes and precepts are followed, we cannot answer for the age of the vine, or for the quality of the wine."

These views of the locality, soils, and exposures of the fine Bordeaux wines, such as the white, or Sauterne, and vin de Grave, and the red or clarets, such as La Fitte, Chateau Margaux, &c. will be left, for the present, on the public mind, with a firm confidence in their due impression, accompanied by the remarks that the difference between our temperatures, in our present wooded condition, and that of the southwest of France, may be safely taken at eleven or twelve degrees; and that the progress of clearing lands and draining swamps, will reduce that difference, in a few years below ten degrees. Thus, St. Mary's in Georgia, will ultimately prove about as warm for vegetation, as Oporto in Portugal, and the productions of Europe, in any given latitude, may be found in, or, as we drain and clear, introduced into the United States in latitudes 9 or 10 degrees farther south. The pride of all Europe is certainly the wines of the following places:

Champagne, in lat. 49° N. in Europe equal to 39° to 40° in U. S.

Burgundy,	48	38 to 39
Old Hock wine	49	39 to 40
Bordeaux, Claret, and Sauterne	44	35 to 36
Best brandy of the wine grape: Bordeaux and Cogniac.	45	35 to 36

The wine district of Europe for the finest wines from Malaga & Xeres 36½ to 49 27½ to 39 or 40 to Epernay, in Champagne,

A friend to the National Industry.
Philadelphia, Nov. 5, 1819,

CONSTITUTION,

Or articles of association of the

NEW YORK COUNTY SOCIETY

For the promotion of Agriculture and Domestic Manufactures.

Art. 1. The objects of this society, are the promotion of agricultural economy, and the encouragement of domestic manufactures.

Art. 2. Every person on becoming a member, shall subscribe these articles, and pay to the treasurer of this society, the sum of not less than one dollar, on the first Monday in June, in each year, for the use of the society, as long as he continues a member. Any member shall have liberty to withdraw, on giving written notice to the recording secretary, and paying all arrears.

Art. 3. The officers of this society, shall consist of a president, two vice-presidents, a treasurer, a recording and corresponding Secretary.

Art. 4. The general administration of the affairs of the society, shall be conducted by a board of managers, consisting of the officers of the society, and twenty-five members, to be chosen by the society; seven of whom shall form a quorum; the president *ex officio*, to be chairman of the board of managers, or, in his absence, the next officer of the society. The board of Managers shall have power to frame by-laws for the regulation of the society; admit ordinary and honorary members; regulate the time and place of the annual exhibition, of which sufficient notice shall be published; designate the objects, and fix the value of each premium; and perform all other acts, which they may think proper and necessary to promote the objects of the society. Actual members of the society, to be admitted to the meetings of the board of Managers, with the right of discussion.

Art. 5. Any by-laws framed by the board of managers, shall be submitted to the society, at their next meeting; and shall only continue in force until that period, unless adopted by the society.

Art. 6. The officers of this society, and the board of managers, shall be chosen forthwith by ballot; and hereafter in like manner, on the first Monday in May. No officer, or member, of this society, to receive any salary or reward, for discharging his official duty.

Art. 7. In case any of the officers, of this society shall die, or resign, the vacancy to be filled by the board of managers, until the annual election in May. The society shall have power to make alterations in or additions to this constitution; which, when adopted shall form part thereof.

New York, May 9th, 1819.

HEMLOCK.

In page 200, Number 25, we published a note from Mr. Field, of Petersburg, Va., desiring that inquiry might be made through the medium of this paper, as to the deleterious qualities of the Hemlock on the constitution of the horse, and stating his apprehensions, that a favourite animal had been poisoned by eating it in his hay.

We promised then to investigate the subject, and in fact we feel it our bounden duty to answer to inquiries of this sort; not merely because it is in the way of the Farmer to make such researches, and to promulgate the result, but because the very generous and distinguished encouragement, which has been given to this journal, induces us to apprehend that higher hopes and more flattering opinions, are entertained of the capacity and knowledge of the Editor, than it will be possible for him to realize and justify with all the industry he can use, in moments of leisure from paramount public duties.

Running our eye hastily over the works in our agricultural collection, which were most likely to throw all necessary light on the various species of Hemlock, and their medicinal qualities, we find in an English work, "Thornton's Family Herbal," an engraving of four different kinds, all of which are represented to be deadly poisonous.

The Fine-leaved Water Hemlock, *Phellodendron Aquaticum*—the Hemlock Water-dropwort, *Oenanthe Crocata*—Water Hemlock, *Cicuta Virosa*, and the Common Hemlock, *Conium Maculatum*. In that splendid *American* work, now publishing in Boston, we find elegant coloured engravings of the *Conium Maculatum*, and of what the author, professor Bigelow, calls the *Cicuta Maculata*, or *American Hemlock*. This we have little doubt is the plant most prevalent, and the one which killed or poisoned Mr. Field's horse.

If by thus exhibiting to our readers, the physiognomy and character of this dangerous intruder, we should be the means of saving a single one of those noble animals from a similar fate, we shall have ample satisfaction, for its having occupied so much of the *American Farmer*.

As to the eradication of this and other noxious weeds that spring up, especially in new made meadows on low lands, the most effectual remedy is no doubt to be found in the *plough*, that is, by *cultivation*; and we have been satisfactorily assured, that *brine* will destroy elder, and other pests, which have been found, by all other means ineradicable.



CICUTA MACULATA.
AMERICAN HEMLOCK.

It is a rule sanctioned by the observations of medical botanists, that umbelliferous plants which grow in or about the water, are of a poisonous nature. This rule will generally be found correct, although it has exceptions. As far as aquatic plants of this natural order have been examined, their properties, in a great majority of instances, have been found, more or less of a deleterious kind. The *Cicuta virosa* of Europe is a highly poisonous plant, possessing such formidable activity that its internal use is hardly attempted in medicine. An American species, the *Cicuta maculata*, the subject of this article, is very closely allied in its botanical habit to the European plant, and was equally deserving of suspicion from its appearance, although the public were not generally aware of its true character. Within a few years past, several instances have been brought to light of fatal

effects ensuing from this plant being incautiously eaten by children. It is therefore necessary that the species should be suitably designated, that a source of so much danger may be known and avoided.

The *Cicuta maculata*, to which I have applied the name of American Hemlock, not having heard any common appellation except that of Snakeweed, inhabits wet meadows and banks, from the northern to the southern limits of the United States, flowering in July and August. It is so frequently cut with hay, among which it often grows in large quantities, that we might expect to see its deleterious properties operating on domestic cattle, were it not that their bodies are probably less susceptible of its poison than ours. The European *Cicuta*, above mentioned, is highly noxious to man, and to some domestic animals, yet goats and sheep eat it with impunity.

The genus *Cicuta* differs from other genera of umbellate plants in having no general involucre, a short, partial involucre, and a fruit which is nearly orbicular, compressed and furrowed.*

The species *maculata* has a fascicled root and oblong leaves with mucronate serratures.

The class and orders are as in the last article.

This plant is so remarkable for the form of its root, that had not the name of *maculata* been confirmed to me by the best authorities, I should have thought that of *fasciculata* to be greatly preferable. This root is composed of a number of large, oblong, fleshy tubers, diverging from the base of the stem, and frequently being found of the size and length of the finger. The root is perennial, and has a strong, penetrating smell and taste. In various parts of the bark it contains distinct cells or cavities, which are filled with a yellowish resinous juice. The plant is from three to six feet high. Its stem is smooth, branched at top, hollow, jointed, striated, and commonly of a purple colour, except when the plant grows in the shade, in which case it is green. The leaves are compound, the largest being about three times pinnate, the uppermost only ternate. Most of the petioles are furnished with long obtuse stipules, which clasp the stem with their base. Leaflets oblong acuminate, serrate, the serratures very acute or mucronated. The veins end in the notches, and not at the points of the serratures. The flowers grow in umbels of a middling size, without a general involucre. The partial umbels are furnished with involucres of very short, narrow acute leaflets. The distinctness or separation of these um-

* This description of the fruit agrees with the present species and also with *Cicuta bulbifera*, a smaller species not uncommon about Boston.—The *Cicuta virosa* of Europe I have never seen.

bels characterizes this plant at a distance among other plants of its kind, whose umbels are more crowded. Calyx of five very minute segments. Petals five, white, obovate with inflected points. Fruit nearly orbicular, compressed, ten furrowed, crowned at top, and separating into two semicircular seeds.

The fleshy root of the *Cicuta maculata*, when pressed emits from its divided extremities a viscid yellowish juice of a strong penetrating taste. This juice dissolves in alcohol, from which it is precipitated by water. When distilled, a thick volatile oil collects in the receiver in the form of a film upon the surface of the water. The remainder of the juice yields a resin of a dark orange colour, fusible and inflammable. The decoction of the root affords a pearl coloured fluid, not very sensible to the tests of mucus, fecula, tannin or extractive.

In August 1814, an account was sent to Boston by Dr. Stockbridge of Bath (Maine) of the effect produced on three boys by eating a poisonous root, which they had dug up, supposing it to belong to the plant called 'Life of man.' One of them was seized with violent convulsions, frothed at the mouth and died in an hour and a half. The other two were affected with vomiting, stupor, dilatation of the pupil, great paleness and universal distress: which symptoms disappeared in one in twenty-four, and in the other in thirty six hours. It was supposed that the first boy had swallowed about a drachm of the root, and the others about half that quantity. A specimen of the plant was sent to me at the same time with the account, and proved to be the *Cicuta maculata*. Dr. Stockbridge's letter, which was published in the *New England Journal*, contains two other cases of the effect of this root, in one of which it proved fatal.

Shortly after the publication of the above facts, an article appeared in the *New York Medical Repository*, containing an account by Dr. Ely of Dutchess county, of the effects of an unknown poisonous root, supposed to be the white hellebore. Three small boys, who had gone into a meadow in search of sweet flag root, had dug up and eaten another root by mistake. Two of them died in convulsions in about an hour after they had swallowed it. They discharged much blood and froth from the mouth and nose; their eyes were fixed, with the pupils dilated, and a rapid motion of the eye lids. The third boy vomited, and recovered. When taken to the place the next day, he pointed out the spot where they had dug the root, and where a considerable quantity of it remained. Some of the root was planted by Dr. Mitchell in the New York Hospital garden, where it vegetated and produced flowers and fruit. It turned out to be the *Cicuta maculata* of Linnæus. In the same article, is a letter

from Dr. Muhlenberg, stating that he had received specimens from Savannah and from West Pennsylvania, where it had destroyed several persons, who ate it by mistake for angelica. All the specimens were similar, so that there could be no doubt of the identity of the plant. In the same letter, Dr. Muhlenberg remarks, that he had reason to believe that the poisonous quality of the root is altered by cultivation in a dry soil.

The foregoing facts are sufficient to establish the poisonous character of the plant under consideration. They may also serve to show the importance of accurate descriptions and faithful engravings of noxious vegetables, which may enable even unlearned observers to distinguish them at sight. There can be little doubt that cases, like those above described, have occurred in repeated instances, which have never met the public eye. Perhaps also from an ignorance of the real cause of the symptoms, the proper remedies have been neglected. The plant is extremely common in many parts of the United States, and I believe its true character is not generally suspected. A very respectable physician informed me, that it was used in his vicinity as a gargle for sore throats, by people unsuspecting of its qualities.

Since the discovery of its narcotic properties, the *Cicuta* has been used in small doses, as a substitute for the conium, by one or two practitioners in this place. Its effects were very analogous to those of the true hemlock, as far as they were observed, but more powerful. A primary symptom, which attended a large dose, was nausea and vomiting.

The treatment of persons poisoned by this plant, as in the case of other narcotics, should primarily consist in a thorough evacuation of the stomach. As there commonly exists a spontaneous tendency to vomit, occasioned by the poison itself, this should be assisted by mechanical means, by irritating the throat with the finger, or with a feather. Of emetics, the sulphate of zinc is to be preferred, on account of its speedy operation. Castor oil or infusion of senna, should be given as soon as vomiting has taken place. The vegetable acids, such as lemon juice or vinegar, have a neutralizing influence on the narcotic, and are therefore useful. Strong coffee and tea are the best antidotes for the stupor, and should be promptly administered. In violent cases, bloodletting should be resorted to. As most narcotic poisons act by destroying the functions of the brain, respiration being suspended, because it is under the influence of that organ; Mr. Brodie is of opinion, that in some cases, life might be preserved by keeping up artificial respiration, after death has apparently taken place.

BOTANICAL REFERENCES.

Cicuta maculata. Linnæus Sp. pl.—Pursh, i. 195.—*Ægopodium foliis lanceolatis, acuminatis, serratis*, Gronovius, Virg. 32. An-

gelica Caribæarum ciator, olusatris folio; flore albo; seminibus luteis, striatis, cumini odore et sapore? Plukenet, Alm. 31, Phyt. t. 76, f. 1.

MEDICAL REFERENCES.

Schæpf, 36.—Bart. Coll. 18, 16,—Stockbridge, New England Journal, iii. 334, Mitchell, Ely and Muhlenberg, Med. Repository, xvii. 303.

KITCHEN GARDEN, FOR DECEMBER.

(From the *American Practical Gardener*, published by *Eielding Lucas, Jr.*)
(Continued from No. 34, page 270.)

General Remarks.

Should the weather prove mild, and the ground continue open, in the beginning of the month, you may complete any work recommended to be done in November, which has, unavoidably been omitted.

If the weather continue open, and your last month's work forwarded, carry dung into the various parts of the kitchen garden, spread it, and trench the ground, laying it in high ridges, to be improved by the frost, &c.

Should the ground be so frozen as to prevent its being trenched, carry in manure, and lay it in a suitable place, to have it at hand, as soon as the ground can be worked. Clean all the seeds, which remain in their pods, or capsules, put them up carefully and label them. Prepare all tools which may be wanted in spring, and take all possible care to prevent every unnecessary delay at that season.

Southern States.

In such of the southern states, as have but very slight frosts during the winter, you may sow on warm borders, for early crops, small quantities of carrots, parsnips, onions, beets, radish, spinach, parsley, &c.; earth up late celery and cardoons, tie up endive for blanching and plant out in rows, up to their heads, such cabbages as are intended for seed. Take care to set each kind apart by itself, and at a considerable distance from any other; for if contiguous, the farina of the one would impregnate the stigmas of the other, and neither kind would retain its original purity.

Plant early Mazagan, Lisbon, long-pod, and Windsor beans, and sow early hot-spur, and other early peas; earth up the crops of peas and beans, which were put in the ground the preceding months; as they advance in growth cover them at night and in severe weather, with long dry straw, which can be conveniently removed, when a favourable change takes place, and laid on again, when found necessary.

Plant out garlic rocambole, and shallots, likewise large onions for seed; sow, as directed in March, the seeds of rhubarb, skirrets, alisanders, dill, and such other kinds of seed, as do not vegetate so freely, when kept till spring.

FRUIT GARDEN.

General Remarks.

Keep all the apartments, where your winter fruit is stored, free from frost. Examine and pick your fruit once in ten or twelve days, and remove all decayed or tainted fruit.

Take all moss from off your trees, and remove it from the garden.

Fasten all the loose branches to the walls or espaliers.

Repair all decayed espaliers; prepare stakes and other materials for this work, that it may be performed, as soon as the frost will admit, and attend to every other kind of business, which will forward you in the spring.

Carry well rotted dung, rich earth or compost, and spread it on the borders for you espalier and wall trees.

Pruning Apples and Pears.

Apples and pears being hardy may now be pruned.

Gooseberries and currants, being also hardy plants, may be pruned in any of the winter months; but if it is requisite to plant cuttings, this pruning ought to be done, when the ground is free from frost, so as to admit of the shoots being planted therein.

Prepare for Forcing Fruit Trees.

Towards the latter end of this, or the beginning of next month, put the lights on your fire heat forcing frames, such as described in January fruit garden, page 144, having previously pruned and nailed up the trees in due order.

The trees should not too suddenly experience the transition from extreme cold, to vegetating heat, but let it be gradually done.

Southern States.

In such of the southern states, as have not severe frost in winter, you may now prune apples, pears, &c. and every other kind of fruit tree, except the fig and orange species. All the above, except the orange, may now be planted in those places with safety.

The editors of the National Intelligencer took the liberty, a few weeks ago, of addressing a letter to the executive officers of the several states in the union, requesting from them information, for public purposes whether any, and if any, what amendments had been made to the constitutions of their respective states. They have received from the following states prompt and satisfactory answers, viz from Maryland, Pennsylvania, New York, New Jersey, North Carolina, Ohio, Kentucky, New Hampshire, Tennessee, and Massachusetts. Fearing that their letters have miscarried, they respectfully request that similar communications may be made to them, as early as convenient, by the executives of the other states.

We learn that the disease called the Burnt tongue, which was mentioned a few days ago, has made its appearance among the cattle in some parts of Baltimore county. The following recipe which was published in the Gazette at that time, and which a respectable gentleman informs, is an infallible remedy, we have been requested to reprint:

Dissolve two ounces of Copperas and two ounces of Alum in a pint of strong Vinegar; swab the mouth and tongue with the solution, until the disease is removed; then dissolve Honey and Alum in Vinegar, and use it in the same way to heal the tongue.

Fed. Gaz.

There were exported from New Orleans from the 1st to the 30th September, 135½ bales of cotton; 549 bales went direct to Europe and 808 coastwise. There were shipped in the same time 768 hhds. of Tobacco, all of which, except 281, were shipped to foreign ports.

NEW YORK, Nov. 18.

Ocean Steam-Ship Company.—A company under this title was incorporated by the Legislature of this state, with a capital of 500,000 dollars, to be employed in the construction and out-fit of vessels to navigate the ocean by steam, and the following gentlemen are named as directors in the charter, viz.

Cadwallader D. Colden

Henry Eckford

Preserved Fish

David Dunham

Robert Bogardus

Charles Hall

John Whetten

John Graham

Elisha Tibbitts

Stephen Whitney

James B. Murray.

The directors have elected the Hon. C. D. Colden to be President and James B. Murray Secretary to the company. And we understand they intend carrying into effect, without delay, the object of their incorporation, by building a steam boat to ply between this port and Liverpool.

Occasional Extracts.

MR. SKINNER,

Dear Sir,—You will oblige a friend by publishing the following:

In your paper, page 273, the following remark is made by "A Subscriber." "As the mania for the culture of Ruta Baga prevails so generally, will it not be a profitless crop to the farmer, unless it be found convenient to expend it on the farm? And if so, what would be the most lucrative use that could be made of it by him who abandons the culture of grain for Ruta Baga."

The most important error, into which the farmers of Maryland have fallen, has been to make almost one entire crop. This is too fatally witnessed in the tobacco district. It never was the design, that the "Ruta Baga" should be an entire crop. Those who raise it, contemplate the feeding of it away to stock, and for culinary purposes, for which it is preferable to any other vegetable. Let "A Subscriber" try a pound of this seed properly thinned, and he will think so; but let him be cautious of whom he buys his seed, for there is many a seedsman, who can talk of Ruta Baga, "in this country or Europe," who knows nothing of it, and would be as likely to sell white turnip as Ruta Baga seed.

"A Subscriber" also says "and why has Mr. Cobbett, with all his explicitness on other points, not informed us what quantity of Ruta Baga, and the length of time required, without the assistance of grain, to render a bullock of any given weight fit for the butcher." To feed an animal on one kind of food without a change, is contrary to the very principles of nature. Although I venture to assert, that the Ruta Baga is preferable to any vegetable I ever did eat, yet I should be very reluctant to live on it, or any other one viand for a twelvemonth. But if "A Subscriber" wishes to be more particularly informed on this subject, let him refer to page 3, of the American Farmer, for the mode of feeding of Columbus and the Delaware ox.

"A Subscriber" also says, "Have you, Mr. Skinner, complied with your promise, to give us Mr. Cobbett's method of earth burning?" You have answered this in a note, not sufficiently explicit, and I think too delicate. Mr. Cobbett protects his publications by securing the copyright, any gentleman who wishes to acquire this information, may obtain it by purchasing the Year's Residence; and in truth, I think you have already ventured very boldly to infringe his copy-rights.

Yours, &c.

A FRIEND.

MR. SKINNER—Please to inform your correspondent, who signs himself A Subscriber, in the Farmer

of the 19th instant, in answer to one of his queries, that Orchard grass is easily propagated by seeding, especially in the spring, and only needs what every other grass seed requires, well prepared ground, free from surface water. It is sown broad cast, near a peck to an acre, when it comes up thick and close, but in a little while, divides into clumps leaving many intervals. It was observed in the essay alluded to, that it made a great appearance, but did not answer to it in the weight of the crop.

That it is not suited to the bringing in of clover; not giving place to it, and out lasting it. But this office is well performed by timothy, which sown in any of the fall months, will afford a mowable crop the next summer, and having clover sown over it in the spring will easily admit its growth, joins in and swells the following crops, with increase of weight, and in dry ground gradually resigns its place to the clover.

J. M.

Baltimore Nov. 24th, 1819.

MR. SKINNER—It being the usual custom of the Roman Governors, to advise the Senate and people of such material things, as happened in their respective provinces. Publius Sentulus, being pro-consul in the days of Tiberius Caesar, the Emperor, wrote the following epistle to the Senate concerning the description of the person of Jesus Christ.

"CONSCRIPT FATHERS."

"There appeared in these our days a man of great virtue, named Jesus Christ, who is yet living among us, and of the Gentiles is accepted for a prophet of truth, but his own disciples call him the Son of God. He raiseth the dead, and cureth all manner of diseases. A man, of stature somewhat tall and comely with a very reverend countenance, such as the beholders may both love and fear; his hair of the colour of a filbert fully ripe, plain to his ears, whence downward it is more orient of colour, somewhat curling and waving about his shoulders; in the midst of his head, is a seam or partition of his head after the manner of the Nazarites; his forehead plain and delicate, his face without spot or wrinkle, beautified with a comely red; his nose and mouth exactly formed, his beard thick, the colour of his hair; not of any great length, but forked; his look innocent, his eyes gray, clear and quick—in reproving, terrible—in admonishing, courteous—in speaking, very modest and wise—in proportion of body, well shaped—none have seen him laugh; many have seen him weep—a man for his singular beauty, surpassing the children of men."

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 3, 1822.

Extracts from a Compendious Dictionary of the Veterinary Art.

(Continued from No. 34, page 272.)

Buck Eyes. A term used by dealers and jockeys for diseased eyes.

Buff. A name commonly given to that yellowish jelly, which is found on the surface of blood that has been drawn from an animal labouring under an inflammatory disorder. This gelatinous coat, in proportion to its thickness, pretty accurately denotes the degree of general inflammation that exists, and its appearance indicates the necessity of further bleeding. It is also named size, and blood with this appearance is said to be sizy. In fact, it consists of the coagulable lymph of the blood, from which the red particles or colouring matter have prematurely subsided. See *Blood*.

Callous. This term in farriery is applied to hard indolent swellings, such as that which often remains after a severe strain of the back sinews. A swelling of the knee in consequence of falling

sometimes continues, after the inflammation that produced it has subsided; it is then free from tenderness and unusual heat, and is said to have become callous. Various means have been proposed for dispersing such swellings; such as camphorated mercurial ointment, oil of origanum, &c. but nothing is so likely to prove effectual as blistering, which may be repeated twice or three times if found necessary, taking care that the effect of one is quite gone before another is applied: and this may be more readily accomplished by washing the blistered part frequently with cold Goulard water, beginning three or four days after the application of the blister. In callous swellings about the back sinews, firing is the best remedy.

Calomel. A well known and very useful preparation of quicksilver or mercury it is used as an alterative, and as a purgative: for the latter purpose it is generally joined with aloes, ginger, and soap; when as an alterative, it may be mixed with a small cordial ball. Calomel is an excellent remedy for worms; For which purpose it is either given alone for three or four successive nights, and then worked off by a common dose of physic, or joined with a sufficient quantity of aloes &c. to act at once as a purgative. As an alterative, the dose of calomel is from one to two scruples; as a purgative, joined with aloes, from one to two drams. When given to destroy worms, and repeated for three or four days, the usual dose is about a dram. When employed alone as a purgative, it has been given to the extent of half an ounce; but this has been seldom done, and perhaps there are but few cases in which it would be deemed prudent to venture on so large a dose.

Canker. An obstinate and often incurable disease which attacks the horse's foot. It more frequently happens to draught horses than to the saddle or blood horse, and to the hind than the fore feet. Canker generally first appears in the cleft of the frog, which discharges matter of a very offensive smell; thence it gradually spreads to the other parts of the foot, and if not checked, ultimately affects even the tendons, ligaments and bones. If canker be attended to at its commencement, a cure may generally be effected without much difficulty, merely by removing carefully all the horny matter, that may be detached from the sensitive parts, and washing the diseased surface twice a day with a strong solution of blue vitriol. It generally happens, however, that the disease is unobserved or neglected until it has made considerable progress; and then the cure is often extremely difficult. The first thing to be done, in whatever stage the disorder may be, is to cut away completely all the horny matter, which may be found to cover a diseased surface, and afford a lodgment for the fetid matter which forms. This must be done freely; it is better to pare away too much than too little. Some practitioners go so far as to remove the whole bottom of the foot, or draw the sole as it is termed: and in cases of long standing, where the disease has spread under great part of the horny sole, it is perhaps, the most effectual method of exposing completely the diseased parts.

Mr. St. Bel strongly recommends it, and indeed all practitioners agree in considering the complete removal of the horny matter, which

covers the diseased sole, or frog, or bars, as an essential and indispensable operation.

The fungous matter which arises from the cankered surface should be freely cut away, and when the bleeding which follows shall have ceased, some mild caustic is to be applied. Mr. Blaine recommends a solution of lunar caustic; one dram to two ounces of water: or blue vitriol, alum, and white lead, of each one ounce, finely powdered, and sprinkled on the part; he then advises to apply very carefully a firm but regular pressure on the whole surface, by means of tow, keeping it on by narrow plates of thin iron placed across each other, having their ends under the shoe; for it must be remembered, he says, that firm permanent pressure is the only thing to be depended upon, when the exuberant or fungous part has been removed. According to Mr. Feron, in his New System of Farriery, "tar and vitriolic acid mixed together make a real specific for canker, as well as thrushes;—or take powdered verdigris, one pound and a half; burnt alum, half a pound; red lead, half a pound; treacle, four pounds; nitrous acid, one ounce: boil the whole to a proper consistence, and when cold add the nitrous acid." It is necessary to dress a canker every day, examining the foot carefully each time, and removing any horn that may be found covering a diseased surface. In inveterate cases the strongest caustics may be employed with advantage, until the cankered parts begin to look more healthy, and the offensive smell has been corrected.

The sulphuric and nitrous acid have been used undiluted with good effect; but these powerful caustics must be applied carefully, and to such parts only as are in a foul cankered state; butler of antimony is a useful caustic for this purpose; powdered sublimate, red precipitate, and burnt alum have also been recommended. When the canker appearance and smell have been corrected, milder dressings are proper; such as,

Friar's balsam, two ounces.

Sublimate, one scruple.

Or,

Tar, four ounces,

Sulphuric acid, two drams.

Oxen and sheep are liable to a disease similar to canker, which sometimes appears between the claws of the divided hoof; at others it exists in only one of the claws, appearing by a crack in the sole or crust, from which a fetid discharge first issues, a luxuriant fungus then forms, and the disease ends in the loss of the claw. If there be only a discharge, Mr. Blaine advises the application of astringents; and if a fungus has formed, the opening is to be enlarged, and the excrescence removed; after this, he directs a hard pledgit of lint, sprinkled with powdered blue vitriol and alum, to be applied exactly within the edges, of the wound, and firmly bound on the part; this is to remain three days, and then, if no fungus appears, a pledgit of lint only is to be applied.

To be continued.

Cecil County, Dec. 2, 1819.

MR. SKINNER.—I have for many years been in possession of an iron mill, which fully meets my wishes for breaking the cob and corn. It is a patent machine upon the same principle as the iron bark mill. I gave for it about 70 dollars, but in this charge I paid for the erection complete. The machinist was at the expense of bringing the mill 40

miles by land, and of preparing all the timber and putting the machine into operation. It is simple in its construction, and not liable to be deranged. I feed my horses and cattle from the mill. I cannot recollect the name of the man who erected my mill, nor that of the patentee—Some farmer of Baltimore can inform you.

Note by the Editor.—The above information comes from the pen of a gentleman whose name is withheld under general and positive instruction, never to publish it without his consent.—We are not insensible to the loss which we and the public experience in his indisposition to write for the Farmer.—We have procured a drawing of "JOHN RODGERS' and JOS. DEMOND'S improvement of the corn and cob mill" and an engraving of it shall be inserted for the satisfaction, particularly of the friend who made the inquiry, and for the information of our subscribers generally—cost \$35. It is possible it may be inserted next week, but it is more probable that we shall be compelled to make it give place to several other engravings that have been for some time proposed.

Queen Anne's County, Nov. 15, 1819.

MR. SKINNER.—I send you some remarks of my much esteemed aged and experienced relation, Mrs. D. D. on the subject of gapes in poultry, after reading in her presence your queries respecting the cause, and your tobacco smoke remedy, &c. But before I proceed, I will tell you she indulged the liberty of "shaking sides" a little (which old ladies generally claim) at your wild conjectures respecting the cause of gapes.

She stated the gapes are occasioned by little red worms which are eaten greedily by young poultry and swallowed alive in such quantities, as to prevent their being killed by the juices of the stomach, before they crawl up the throat and get into the windpipe, which gives them that uneasy and fatal disorder—the gapes. She stated she once saw the worms extracted from the pipe, by means of an elastic wire, which was twisted like a screw into the pipe and drawn out, bringing with it three and four worms at a time, until the number of thirty was extracted from one chicken, and immediately the chicken ate heartily, and went off well which had refused food before; she stated this as a remedy, but it is a hazardous one, and if not skilfully applied will give instant death; for if the wire is pressed into the pipe in such a way as to stop the breath too long, the death of the chicken is certain; she therefore recommends prevention, rather than cure; which may be effected these several ways:—First by keeping the young poultry up till the sun drives the worms below the surface of the ground, and put up before the worm rises. Second by feeding them so well before let out, as to remove the desire to eat them in such quantities. Third, by removing the surface every season before hatching time,* as by so doing the worm will be carried from the poultry yard, as this is the place where the worm so much abounds,—these are the means invariably practised by her, and very great success repays her labours. If these observations are considered sufficient to explain the cause of the malady, they are at your option. I remain your highly gratified subscriber, W. R.

* This ought to be done by ploughing off the surface; it would cleanse the poultry yard, and give it the healthiness which all housekeepers know belongs to a new dunghill. Fowls are always raised with more ease and success where none have been raised before. Again, by this practice of ploughing up and removing the surface of old dunghills, another object will be gained, to which even the most thoughtless farmer begins to attach some little importance—it would increase the quantity of manure. Edit. Amer. Far

Singular effect of Peruvian Bark.

A French merchant, at Guayra, named Delpech, in 1806, had occasion to receive several travellers, inhabitants of those countries. The apartments destined for visitors being filled, and the number of his guests increasing, he was under the necessity of put-

ting several of them in rooms occupied by cinchona. Each of them contained from 8 to 10 thousand pounds of that bark. One of his guests was ill of a very malignant fever. After the first day he found himself much better, though he had taken no medicine; but he was surrounded with an atmosphere of cinchona which appeared very agreeable to him. In a few days he felt himself quite recovered without any medical treatment whatever. This unexpected success led M. Delpech to make some other trials. Several persons, ill of fever, were placed successively in his magazine of cinchona, and they were all speedily cured, simply by the effluvia of the bark.

In the same place with the cinchona, he kept a bale of coffee, and some bottles of common French brandy. In some time M. Delpech, when visiting his magazine, observed one of the large bottles uncorked. He suspected at first the fidelity of a servant, and determined to examine the quality of the brandy. What was his astonishment to find it infinitely superior to what it had been! A slightly aromatic taste added to its strength, and rendered it more tonic and more agreeable. Curious to know if the coffee had likewise changed its properties, he opened the bale, and roasted a portion of it. It was more bitter and left in the mouth a taste similar to that of the effluvia of bark.—The bark which produced these singular effects was fresh. Would the cinchona of commerce have the same efficacy?

[We copy, with much pleasure, from the Franklin Gazette, the following notice of the splendid Print recently published in Philadelphia. More is not said of the print than it well deserves, but it is said in a manner which reflects as much credit on the writer as on the work. To understand this remark, it should be known to our readers, as it is to us, that a bitter political animosity exists between Mr. Binns, (as the editor of the Democratic Press) and the editors of the paper from which the following is copied.]

Nat. Intel.

"The new print of the Declaration of Independence, published by J. Binns, reflects great credit on the various artists who executed the work.—We have seen nothing of the kind superior to the engraved portraits which adorn it. The writings and the arms of the different states are elegant and highly ornamental. The whole of the signatures, with one exception, appear to have been originally well written; and the fac similies are handsomely executed. The publisher has exhibited in this expensive work, much enterprise and perseverance, and has fully redeemed the pledges given in his proposal in relation to it. Upon the whole, as a specimen of the progress and perfection of American art; as a state paper inimitably penned, and destined to unfading immortality; and as an ornament not less beautiful to contemplate, than instructive to read and study; We recommend every American family, who can spare the means, to procure a copy of this truly splendid print of the Declaration of Independence."

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